

Claims:

1. An apparatus, in particular for the parameterization and remote monitoring of heating installations, comprising
a system unit (8) suited for data transmission according to a first data transmission protocol,
at least one facility (2, 3, 4) suited for data transmission according to a second data transmission protocol,
a protocol converter (1) connected to system unit (8) and converting data of the first data transmission protocol into data of the second data transmission protocol and vice versa, and
a bus system (5) to which facilities (2, 3, 4) and protocol converter (1) can be connected.
2. The apparatus according to claim 1, wherein the facilities (2, 3, 4) connectable to bus system (5) are heating, air conditioning and/or cooling installations and/or measuring or control units for operating heating, air conditioning and/or cooling installations.
3. The apparatus according to claim 1 or 2, wherein the bus system (5) is a house or field bus and/or the second data transmission protocol is a LON protocol.
4. The apparatus according to any least one of claims 1 to 3, wherein the first data transmission protocol is a protocol on the basis of the Internet Protocol IP, in particular the Simple Network Management Protocol SNMP, the Hypertext Transport Protocol HTTP, the

2023071853007

Transport Control Protocol TCP or the LonWorks Network Protocol.

5. The apparatus according to at least one of claims 1 to 4, wherein the protocol converter (1) retrieves predetermined data from facilities (2, 3, 4) at given intervals, stores them, sends them to system unit (8) and/or holds them in store for inquiry by system unit (8).
6. The apparatus according to at least one of claims 1 to 5, wherein the protocol converter (1) includes a memory (6) for storing the data retrieved from the facilities.
7. The apparatus according to at least one of claims 1 to 6, wherein the protocol converter (1) sends data received from system unit (8) and determined for a certain facility (2, 3, 4) via the bus system (5) to the corresponding facility (2, 3, 4).
8. The apparatus according to at least one of claims 1 to 7, wherein the protocol converter (1) activates a predetermined connection when a trouble or maintenance report was received from one of the facilities (2, 3, 4).
9. The apparatus according to at least one of claims 1 to 8, wherein the protocol converter (1) sends a given message, in particular a facsimile message, a voice message, an e-mail, or an SMS message, when a trouble or maintenance report was received from one of the facilities (2, 3, 4) and the connection to system unit (8) is troubled.

2002-07-17 14:55:00

10253 17

10. The apparatus according to at least one of claims 1 to 9, wherein the connection between protocol converter (1) and system unit (8) is established via an analog and/or digital telephone line and has an analog modem, a GSM modem or an ISDN modem (7, 9).
 11. The apparatus according to claim 10, wherein the connection between protocol converter (1) and system unit (8) is established via a call-back procedure.
 12. The apparatus according to at least one of claims 1 to 11, wherein system unit (8) connects to protocol converter (1) at given intervals and retrieves predetermined data which were previously retrieved from facilities (2, 3, 4) and buffered by protocol converter (1).
 13. The apparatus according to at least one of claims 1 to 12, wherein the system unit (8) connects to protocol converter (1) and/or sends data for a certain facility (2, 3, 4) to protocol converter (1) and/or receives data of a certain facility (2, 3, 4) from protocol converter (1).
 14. The apparatus according to at least one of claims 1 to 13, wherein system unit (8) has a database (10) containing the configuration, commissioning, maintenance and/or operation data of facilities (2, 3, 4) and/or the protocol converter (1), in particular trouble and maintenance reports.

15. The apparatus according to claim 14, wherein the system unit has an internet and/or WAP server for access to database (10).
16. The apparatus according to at least one of claims 1 to 15, wherein system unit (8) sends a given message, in particular a facsimile message, a voice message, an e-mail or SMS message, when a certain trouble or maintenance report was received from one of facilities (2, 3, 4).
17. The apparatus according to at least one of claims 1 to 16, wherein several system units (8, 11) connect to protocol converters (1) and/or receive data from the protocol converters (1) and/or send data to the protocol converters (1), system units (8, 11) being connectable to each other via the internet.
18. The apparatus according to claim 17, wherein one of the system units (8) has a central database (10) to which the other system units (11) send data updates and/or with which the databases (12) of the other system units (11) are collated.
19. A method, in particular for the parameterization and remote monitoring of heating installations, comprising the steps of:
data transmission according to a first data transmission protocol between a system unit (8) and a protocol converter (1),
conversion of data of the first data transmission protocol into data of a second data transmission protocol and vice versa in the protocol converter (1),
and

00085847-022605

data transmission according to the second data transmission protocol between the protocol converter (1) and at least one facility (2, 3, 4).